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| 10/525,665   | 11/21/2005  | Silke Goronzy        | 282728US8XPCT              | 7991             |
| 22850  | 7590        | 11/17/2008           |                            |                  |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      | EXAMINER<br>TO, BAOQU'OC N |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/525,665

**Applicant(s)**

GORONZY ET AL.

**Examiner**

BAOQUOC N. TO

**Art Unit**

2162

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29, 31-40 and 42-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-28, 30 and 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29, 31-40 and 42-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

1. Claims 29, 31-36 and 38-40 and 42 are amended and 1-28, 30 and 41 are canceled in the amendment filed on 08/01/2008.

Claims 29, 31-40 and 42-43 are pending in this application.

***Response to Arguments***

2. Applicant's arguments with respect to claims 29 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 29, 35-38, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bala et al. (Pub. No. US 2002/0056091 A1) in view of Dagtas et al. (Patent No. 6,859,803 B2) and further in view of Tang et al. (US. Patent No. 7,290,029 B2).

As to claim 29, Bala discloses a method to create an individual user profile from a multi-user profile that comprises

at least once splitting the multi-user profile according to user features that represent a typical general behavior of an individual user in respect to the application where the user profile is used (the information in the user profile, or sub-set of it, can be used to generate an individual file for each user for the local monitoring of the network interaction) (paragraph 0039). Bala does not disclose a list of word-weight pairs and wherein said at least one splitting steps includes a) performing a tentative split according to user features to generate a first and a second sub user profile, b) calculating the relative different between the two sub user profiles, c) performing steps a) to b) until all or predetermined number of tentative splits are performed and splitting the multi-user profile according to that tentative split that yields the highest relative different in case said relative difference lies above a predetermined threshold; however, Dagtas discloses a list of word-weight pairs (each word pair in word pair database 450 has an assigned word pair weight factor. The word pair weight factor is a number that

reflects the relative significance or importance of a particular word pair...) (col. 9, lines 14-23). This suggests a list of word-weight pairs. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala to include a list of word-weight pairs as disclosed by Dagtas in order to retrieve document based on the keyword pair. Tang also discloses

a) performing a tentative split according to user features to generate a first and a second sub user profile, b) calculating the relative different between the two sub user profiles, c) performing steps a) to b) until all or predetermined number of tentative splits are performed and splitting the multi-user profile according to that tentative split that yields the highest relative different in case said relative difference lies above a predetermined threshold (...the user profile divided into two sub-areas: History results area is sued to store the candidate character...) (col. 4, lines 42-49). This suggests the dividing user profiles and values for each subset of sub profile. Therefore, it would have been obvious to modify Bala and Dagtas to include dividing user profiles and values for each subset of sub profile as disclosed by Tang in order to allow each subset use for filtering and searching.

As to claim 35, Bala discloses the method according to claim 29, characterized in that a future program comprises a stored personal content (content) (paragraph 0043).

As to claim 36, Bala discloses the method according to claim 1, characterized in that it is used in an audio/video program suggestion engine (notify offline) (paragraph 0004).

As to claim 37, Bala discloses the method according to claim 36, characterized in that said audio/video program suggestion engine is internet based (internet) (paragraph 0003).

As to claim 38, Bala discloses the method according to claim 29, characterized in that it is client based (system 10) (paragraph 0127).

As to claim 40, Bala discloses a computer program product, having computer readable instructions that when executed on a processor perform method steps as defined in claim 29 said processor being included a computer (system 10) (paragraph 0127) micro processor, or digital signal processor, of a home server, set-top-box, TV, VCR, PDA.

As to claim 42, Bala does not explicitly disclose a computer-implemented profiler to create a user profile that comprises a list of word-weight pairs, characterized by being adapted to perform the method steps as defined in claim 29. However, Dagtas discloses a computer-implemented profiler to create a user profile that comprises a list of word-weight pairs, characterized by being adapted to perform the method steps as defined in claim 29 (each word pair in word pair database 450 has an assigned word pair weight factor. The word pair weight factor is a number that reflects the relative significance or importance of a particular word pair...) (col. 9, lines 14-23). This suggests a list of word-weight pairs. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala to include a list of word-weight pairs as disclosed by Dagtas in order to retrieve document based on the keyword pair.

4. Claims 31-32, 34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bala et al. (Pub. No. US 2002/0056091 A1) in view of Dagtas et al. (Patent No. 6,859,803 B2) and further in view of Tang et al. (US. Patent No. 7,290,029 B2) and further in view of Thint et al. (US. Patent No. 7,243,105 B2).

As to claim 31, Bala and Dagtas and Tang disclose the method according to claim 29 excepting for characterized in that said relative difference is calculated by calculating a difference of a first discrete probability distribution of the first sub user profile over the user features that are contained therein and of a second discrete probability distribution of the second sub user profile over the user features that are contained therein. However, Thint discloses characterized in that said relative difference is calculated by calculating a difference of a first discrete probability distribution of the first sub user profile over the user features that are contained therein and of a second discrete probability distribution of the second sub user profile over the user features that are contained therein (... , ii. generating a set of personalized rule weightings according to a second set of rules and with reference to a set of user preference data, iii. receiving event statistic relating to a user's activity...) (col. 3, lines 43-58). This suggests calculating the weight based on the user features. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Martino to include calculating the weight based on the user features as disclosed by Thint in order to allow better result based on the improved user profile.

As to claim 32, Bala and Dagtas and Tang disclose the method according to claim 29 excepting for characterized in that said difference of said two discrete probability distributions is calculated using the symmetrized Kulback-Leibler-distance sum, where events which happen zero times are replaced by one virtual occurrence or where only events which happen at least once in both distributions are taken into account; however, Thint discloses characterized in that said difference of said two discrete probability distributions is calculated using the symmetrized Kulback-Leibler-distance sum, where events which happen zero times are replaced by one virtual occurrence or where only events which happen at least once in both distributions are taken into account (... , ii. generating a set of personalized rule weightings according to a second set of rules and with reference to a set of user preference data, iii. receiving event statistic relating to a user's activity...) (col. 3, lines 43-58). This suggests calculating the weight based on the user features. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala and Dagtas and Tang to include calculating the weight based on the user features as disclosed by Thint in order to allow better result based on the improved user profile.

As to claim 34, Bala and Dagtas and Tang do not disclose the method according to claim 29 characterized in that said general key structure includes a forgetting factor. However, Thint discloses the method according to claim 1 characterized in that said general key structure includes a forgetting factor (... , ii. generating a set of personalized rule weightings according to a second set of rules and with reference to a set of user



preference data, iii. receiving event statistic relating to a user's activity...) (col. 3, lines 43-58). This suggests calculating the weight based on the user features. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala and Dagtas and Tang to include calculating the weight based on the user features as disclosed by Thint in order to allow better result based on the improved user profile.

As to claim 39, Bala and Dagtas and Tang do not disclose method according to claim 29, characterized in that said user features comprise one or more of the following features: preferred channel of audio/video program consumed by the user, typical time to consume an audio/video program by the user, length of consuming an audio/video program by the user in relation to the total length of the audio/video program, time of beginning the consume of an audio/video program by the user in relation to a start time of the audio/video program, typical length of consuming an audio video program by the user in relation to the time of consuming, relation between how often a particular audio/video program is consumable and how often it is consumed by the user, general audio/video program consuming behavior of the user, in particular in relation to a switch-on time and length of a used audio/video device, audio/video programs recorded by the user, time duration between the recording of a particular audio/video program by the user and the consuming of said audio/video program by the user, actual mood of the user, actual wish of audio/video program entered by the user, year of production of an audio/video program consumed by the user, director and/or actor and/or group of actors of an audio/video program consumed by the user, type of an audio/video program

consumed by the user, and title of an audio/video program consumed by the user.

However, Thint discloses method according to claim 1, characterized in that said user features comprise one or more of the following features: preferred channel of audio/video program consumed by the user, typical time to consume an audio/video program by the user, length of consuming an audio/video program by the user in relation to the total length of the audio/video program, time of beginning the consume of an audio/video program by the user in relation to a start time of the audio/video program, typical length of consuming an audio video program by the user in relation to the time of consuming, relation between how often a particular audio/video program is consumable and how often it is consumed by the user, general audio/video program consuming behavior of the user, in particular in relation to a switch-on time and length of a used audio/video device, audio/video programs recorded by the user, time duration between the recording of a particular audio/video program by the user and the consuming of said audio/video program by the user, actual mood of the user, actual wish of audio/video program entered by the user, year of production of an audio/video program consumed by the user, director and/or actor and/or group of actors of an audio/video program consumed by the user, type of an audio/video program consumed by the user, and title of an audio/video program consumed by the user (interest topic accessed; interest topic searched...(col. 8, lines 42-58). This suggests the activities of the user. Therefore it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala and Dagtas and Tang to

include collecting user activities as disclosed by Thint in order to allow the system to provide relevant data in later time.

5. Claims 33 and 43 rejected under 35 U.S.C. 103(a) as being unpatentable over ala et al. (Pub. No. US 2002/0056091 A1) in view of Dagtas et al. (Patent No. 6,859,803 B2) and further in view of Tang et al. (US. Patent No. 7,290,029 B2) in view of Martino et al. (Pub. No. US 2003/0126108 A1)

As to claim 33, Bala, Dagtas and Tang do not disclose a method to specify a suggestion for a next selection of a user, which suggestion is determined on basis of suggestion results which are computed of future program descriptions and a user profile created by a method specified in claim 29, comprising: filtering a user history which is used to create the user profile, and/or the user profile, and/or the suggestion results based on an actual situation of the user represented on basis of user features that represent a typical general behavior of an individual user in respect to the application where the user profile is used. However, Martino discloses a method to specify a suggestion for a next selection of a user, which suggestion is determined on basis of suggestion results which are computed of future program descriptions and a user profile created by a method specified in claim 29, comprising: filtering a user history which is used to create the user profile, and/or the user profile, and/or the suggestion results based on an actual situation of the user represented on basis of user features that represent a typical general behavior of an individual user in respect to the application where the user profile is used (various "recommenders," utilities suggesting items to a

user based on the user's likes and dislike, are employed for suggesting television programming, music, books or other items..." (paragraph 0007). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala, Dagtas and Tang to include suggestion using the profile as disclosed by Martino to allow the system to provide the relevant data.

As to claim 43, Bala, Dagtas and Tang do not disclose suggestion engine to specify a suggestion for a next selection of a user, which suggestion is determined on basis of suggestion results which are computed of future program descriptions and a user profile, characterized by being adapted to perform the method steps as defined in claim 33. However, Martino discloses suggestion engine to specify a suggestion for a next selection of a user, which suggestion is determined on basis of suggestion results which are computed of future program descriptions and a user profile, characterized by being adapted to perform the method steps as defined in claim 33 (recommenders may employ a specific user's profile) (paragraph 0007). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala, Dagtas and Tang to include suggestion using the profile as disclosed by Martino to allow the system to provide the relevant data.

6. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bala et al. (Pub. No. US 2002/0056091 A1) in view of Dagtas et al. (Patent No. 6,859,803 B2) and further in view of Tang et al. (US. Patent No. 7,290,029 B2) and further in view of

Martino et al. (Pub. No. US 2003/0126108 A1) and further in view of Thint et al. (US Patent No. 7,243,105 B2).

As to claim 44, Bala, Dagtas, Tang and Martino do not disclose a suggestion engine according to claim 43, characterized by a profiler to perform the step of computing the weights based on user features that represent a typical general behavior of an individual user in respect to the application where the user profile is used; however, Thint discloses a suggestion engine according to claim 43, characterized by a profiler to perform the step of computing the weights based on user features that represent a typical general behavior of an individual user in respect to the application where the user profile is used (... ii. generating a set of personalized rule weightings according to a second set of rules and with reference to a set of user preference data, iii. receiving event statistic relating to a user's activity...) (col. 3, lines 43-58). This suggests calculating the weight based on the user features. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify teaching of Bala, Dagtas, Tang and Martino to include calculating the weight based on the user features as disclosed by Thint in order to allow better result based on the improved user profile.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041, or unofficial fax number for the purpose of discussion (571) 273-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) 273-8300 [Official Communication]

/Baoquoc N To/

Primary Examiner, Art Unit 2162

November 8th, 2008